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2016

Rinne , P & Nygren , A 2016 , ' From resistance to resilience : Media discourses on urban flood governance in Mexico ' , Journal of Environmental Policy & Planning , vol. 18 , no. 1 , pp. 4-26 . <https://doi.org/10.1080/1523908X.2015.1021414>

<http://hdl.handle.net/10138/231394>

<https://doi.org/10.1080/1523908X.2015.1021414>

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**From resistance to resilience:
Media discourses on urban flood governance in Mexico**

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Abstract

This article examines the continuities and changes in newspaper coverage of urban flood governance in Tabasco, southeastern Mexico, where highly destructive floods have made flood risks a socially sensitive and politically contested public issue. The analysis draws upon post-Foucauldian critical discourse analysis, paying special attention to different actors' discursive strategies to further their agendas amid the shifting forms of environmental governance. We argue that in recent years, discourses that promote integrated flood governance, based on cultural adaptation and social resilience instead of technological control, have become prominent in the media presentation of flood governance. These discourses endorse neoliberal views of flood governance as an issue of public-private co-governance and civil self-responsibility whilst being reluctant to consider flood risk from the perspective of the uneven distribution of vulnerabilities or as an issue of human rights.

Keywords: flood governance, media discourses, Mexico, resilience, urban

Introduction

Urban floods present a serious environmental risk in many parts of the world, and they are expected to cause more damage in the future due to global climate change. Technocentric, structural flood control measures have recently given way to integrated flood governance strategies, comprised of structural and non-structural measures (Allan, 2012). This transition has been discursively formulated as a shift from ‘fighting against water’ to ‘living with water’ (van Herk, Zevenbergen, Asheley, & Rijke, 2011, p. 545). It has also been considered a turn towards local engagement and co-delivery in the management of environmental risks (Nye, Tapsell, & Twigger-Ross, 2011).

In this article, we analyse the continuities and changes in media discourses on urban flood governance in Tabasco, southeastern Mexico, and the discourses’ links to shifting forms of environmental governance. Drawing upon post-Foucauldian critical discourse analysis (CDA), we examine how the strategies of flood governance endorsed in and by the Tabascan newspapers have shifted from 1999 to the present. Our main focus concerns: 1) how media discourses reflect and shape the thinking, speaking and acting in the flood governance domain; 2) how media discourses prioritise certain perspectives and understate others; and 3) how media discourses change over time amid the shifting procedures of environmental governance. Through our analysis, we aim to show how changes in the political rationalities of governance shape how media present flood risk and flood governance, and correspondingly, how media discourses endorse, negotiate and contest the dominant rationalities and techniques of flood governance.

In 2007, the city of Villahermosa in the State of Tabasco experienced catastrophic flooding that inundated 62 per cent of the city. This disaster affected 1.5 million people, and the economic losses were calculated at 2.5 thousand million USD, equivalent to

30 per cent of the state's gross domestic product (CEPAL, 2008). Since then, urban flood governance has been a key topic in environmental policy and planning, media coverage and everyday discussion in Tabasco. Recent studies on governance have called for systematic analyses of how particular discourses and rationalities of governance are constituted in specific locations through differentiated and often uneven processes (Brenner, Peck, & Theodore, 2010; Carrier, 2012; Guarneros-Meza, 2009). By tracing the trajectories that have forged particular media discourses on flood governance in Tabasco, our study seeks to offer a detailed analysis of how heterogeneous agendas are brought together in multi-layered media discourses on governance in a situation where there is a specific need to formulate new strategies to manage the flood risk.

Environmental governance is a discursively constituted and constitutive issue (Carvalho, 2008; Feindt & Oels, 2005; Hajer & Versteeg, 2005). Prevailing policies mediate struggles over the discourses of environmental governance, at the same time as discourses shape how policies and public opinion on environmental risks and environmental governance are formulated. We understand 'discourses' as specific ensembles of 'ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices' (Hajer, 1997, p. 44) and are closely linked to wider 'institutional, socio-cultural and material contexts' (Richardson 2007, p. 24).

The power of the news media in shaping public opinion, through repeated coverage and by portrayal of a particular issue from different perspectives, has been largely recognised by communication researchers, political scientists and policy analysts (DiFrancesco & Young, 2011; Feindt & Kleinschmit, 2011; Petersen, 2007). Despite the current popularity of social media, it is the newspapers that have the key role in mediating public opinion on highly politicised regional issues that have a high degree of drama and local significance (Bohensky & Leitch, 2014), such as flood governance in Tabasco.

We argue that the new discourses on public-private co-governance and civic self-responsibility promoted by the Tabascan media have clear parallels with the hybrid forms of neoliberal governance endorsed in Mexico, along with other emerging economies in the global South. Characteristic of such rationalities of governance is the promotion of individualised strategies of risk management, civic self-care and privatisation of environmental services, instead of governmental regulation (Butler & Pidgeon, 2011; Escobar & Demeritt, 2012; Porter & Demeritt, 2012). Neoliberal governance refers here to a sort of political rationality – in the Foucauldian sense – and related acts of governing and modes of creating subjects, where a diversity of government, private and voluntary sectors, together with an active citizenry, engage in multi-sited governance through a hybridity of techniques and forms of knowledge (Ferguson, 2010, p. 171; Fraser, 2009, pp. 125–30).¹

The city of Villahermosa is located in the humid, tropical lowland near the Gulf of Mexico. The area is exposed to extreme hydro-meteorological events, including tropical storms (Aparicio, Martínez-Austria, Güitrón, & Ramírez, 2009). Two large rivers, the River Grijalva and the River Carrizal, traverse the city; additionally, there are dozens of lagoons within the city, several of which have been filled – often with waste – for construction purposes. Since the early 1800s, severe floods have been recorded in Villahermosa. However, exceptionally devastating floods occurred in 1999 and 2007, and since 2007, the city has suffered annually from serious flooding (Perevochtchikova & Lezama de la Torre, 2010). The increased flood risk, associated with climate change, and the residents' perception of vulnerability to flood damage have made flood governance an issue of intense public debate.

Conventionally, the dominant flood governance measures in Tabasco, as elsewhere in Mexico, have been structural, including the construction of dams and floodwalls

¹ There is huge variation in the way the term 'neoliberalism' is used in contemporary scholarship. As Ferguson (2010, pp. 170–72), points out, it is important to make an analytical distinction between the usage of neoliberalism as arts of governing and neoliberalism as a macroeconomic doctrine and a class-based ideology.

and the diversion of water through canals and dykes. Recently, there has been a shift from such technocentric flood-control measures towards integrated flood-resilience strategies that aim to make people adapt to floods instead of resisting them (CONAGUA, 2011a). These new strategies include many non-structural measures, such as integrated urban planning, the relocation of residents from high-risk areas, social learning and the revival of cultural practices of living with water (CONAGUA, 2011b). Our study demonstrates how recent media discourses seek to render flood risk governable by constructing it no longer predominantly as an issue of technological control but increasingly as an issue of social resilience and civic self-care.

In the next section, we present theoretical approaches that are important for understanding the multi-faceted links between media discourses, flood governance strategies and power-knowledge relations. The third section explains the socio-political context and the methods used in the study. The fourth section traces the media's political mapping of the actors and institutions relevant in flood governance, while the fifth section analyses the continuities and changes in the media discourses on flood governance. The final section presents conclusions concerning shifting media discourses, rationalities of flood governance and power-knowledge relations.

Discourses, governance and authority

Our analysis is based on post-Foucauldian, critical discourse analysis (CDA), paying special attention to the connections between discourses, governance and authority (Carvalho, 2008; van Assche, Duineveld, Beunen & Tempeau, 2011). We rely on the Foucauldian ideas of governmentality as 'techniques and procedures for directing human behaviour', or the 'conduct of conduct' (Foucault, 1997, p. 82; 2007, pp. 192–93). Inspired by Mitchell Dean's

(2010, pp. 30–37) and Angela Oels’ (2005; 2013) post-Foucauldian analyses, we examine media discourses on flood governance from the perspective of: 1) rationalities; 2) fields of (in)visibility; 3) techniques of governing; 4) modes of knowledge; and 5) identities forged in and by the media. By examining who or what is aimed to be governed, how and to what ends (Rose, O’Malley, & Valverde, 2006, p. 85), post-Foucauldian CDA offers a fruitful perspective for analysing the political rationalities, forms of knowledge and relations of power that are produced and negotiated in the media discourses on governance.

As Foucauldian-oriented CDA usually focuses on the formulation of discourses and the associated political practices in a certain time and place (Dean, 2010, pp. 20–21; Rabinow, 1991, pp. 4–5), our analysis of Tabascan media discourses takes into account that the meanings of ‘flood risk’ and ‘flood governance’ are products of context-specific regimes of power-knowledge that change over time (Oels, 2013). We demonstrate how new discourses – including new meanings attached to old concepts – are constructed in negotiation and contestation between differentially situated actors. By emphasising the interconnection between discourses and rationalities of governance – as manifest in the media discourses – we pay special attention to what different actors want to happen, in pursuit of what objectives and by what means (Rose *et al*, 2006).

In addition to the role of extra-textual factors in the formulation of discourses (Jäger & Maier, 2009; Richardson, 2007, pp. 26–27), post-Foucauldian CDA is interested in the use of language as a medium of power and ideology and how socio-political practices shape the formulation of discursive strategies (Collier, 2009; Sharp and Richardson, 2001). According to Foucauldian thinking, discourses do not merely reflect reality; they shape our interpretations and establish the regimes of knowledge and truth that regulate how we see ourselves, others and our surroundings (Rabinow, 1991, p. 10). Hence, discourses mediate and are mediated by political practices through dynamic struggles over politics and meanings.

By combining a post-Foucauldian CDA with a careful examination of the socio-political context, our analysis aims to offer increased understanding of the multifaceted links between discourses, power and politics (Krzylanowski, 2011).

A crucial component of post-Foucauldian CDA is the examination of who has legitimate access to public discussion and who authorises the formulation of public issues. Our analysis pays special attention to how the media portrays the different social actors involved in flood governance, and how these actors, together with journalists, present the flood issue, emphasising some issues while marginalising others. While discourses undergo constant transformation and include many contradictions, there is regularity in their irregular dispersion that is an effect of and an instrument for particular rationalities of governance (Collier, 2009; Oels, 2005). Through a diachronic analysis of the changes in media discourses over time and a synchronic examination of the divergences between different discourses at a given time, we illustrate the continuities and changes in the debates circulating around of the politically volatile issue of flood governance. Rather than carrying out a rigorous, text-based media analysis, we seek to demonstrate how media discourses on flood governance coincide and conflict with each other, and how discursive strategies and political practices are interconnected (Krzylanowski, 2011).

Textually oriented discourse analyses have often assumed that discursive changes take place through communication. This view has been challenged by post-Foucauldian approaches, which posit that discursive formations are not simply a matter of communicative exchange, but assemblages that extend into the realms of political practices mediated by power-knowledge interactions (Collier, 2009; Rose *et al.*, 2006; Shapiro, 2013). That media discourses are shaped in configurations with other discourses amid shifting socio-political conditions invites careful consideration of the social circumstances ‘outside’ the texts. Rather than asking about the truth of an argument, post-Foucauldian approaches

suggest that we ask how, when and by whom truth is attributed to particular arguments and not to others (Coleman, Morrison, & Scott, 2012; Collier, 2012). Careful consideration of the links between discourses and political practices is needed for a better understanding of how discourses seek to render certain subjects and certain versions of reality governable (Li, 2007). Thus, post-Foucauldian approaches provide analytical strategies that transcend the normative assumptions of ‘good’ and ‘bad’ governance, and the dichotomous views of liberating versus repressive techniques of power, characteristic of many policy-oriented approaches to discourses and governance (Mckee, 2009).

According to post-Foucauldian thinking, the issues related to discourse and representation are not just juridical or ontological, they are historical and political (Diaz-Bone *et al.*, 2008, p. 14). By constituting and reconstituting the boundaries of socially adequate and politically preferable forms of thinking and acting, discourses have an important role in the (re)production and contestation of public policies and formulation of public opinion. In the following analysis, we explore how certain rationalities of flood governance are supported and challenged in and by the Tabascan media; what kinds of (in)visibilities, techniques and fields of knowledge media discourses sustain; and how certain places and populations are aimed to be rendered governable through particular discourses on governance.

Context and methods

For the purpose of our analysis, we examined the coverage of flood governance in two major newspapers in Tabasco. *Presente*, founded in 1959, is one of the most popular regional newspapers aligned to the centrist *Partido Revolucionario Institucional* (PRI), which led the

Tabascan state government from 1959 to 2012.² The current circulation of *Presente* is about 25 000. *Tabasco Hoy*, founded in 1987, is a highly popular newspaper with more critical views of PRI-inclined state policies. The printed circulation of *Tabasco Hoy* is about 30 000, with 45 000 people reading its electronic version. In 2010, *Tabasco Hoy* received a national journalism award for its intensive coverage of the 2007 flood. Media and communications are highly politicised issues in Mexico. Most of the regional newspapers receive part of their funding from the state government, which to some degree influences their news coverage.

We focused our analysis on the years 1999, 2003 and 2007–2012 because they mark the critical discursive and political stages in urban flood governance in Tabasco. In 1999, one of the most devastating floods within living memory occurred in Villahermosa. This event provoked increased interest in flood issues in regional environmental policy and planning. In 2003, the governmental flood control programme, *Programa Integral Contra Inundaciones* (PICI), was established and by that point, flood governance had become a widely reported issue in the media. The 2007 catastrophic flood initiated a shift away from the technocentric flood control measures towards integrated flood governance strategies; further a new water governance programme, *Programa Hidrico Integral de Tabasco* (PHIT), was established in 2008. Since then, flood governance has been widely discussed in regional environmental policy, in the media and in everyday politics.

The data for 1999 and 2003 were gathered by reviewing printed versions of the newspapers in the Villahermosa media archives, while data for 2007–2012 came from the newspapers' electronic archives. We searched the relevant articles by using the Spanish keywords for flood(s) ('*inundación*', '*inundaciones*') and flood management and flood governance (using the term '*hídrico*'). In the first review of the data, we excluded those

² The PRI also dominated Mexican national politics from 1929 to 2000. Tabasco has traditionally been a stronghold of the PRI, but in 2013 the left-of-centre *Partido de Revolución Democrática* (PRD) came to power. It remains to be seen if this political shift will affect flood discourses and policies in Tabasco.

articles in which flood governance was only mentioned as a side issue. This left us with a total of 820 articles, of which 516 were from *Tabasco Hoy* and 304 from *Presente*. These constituted the main corpus of our analysis.

In the closer qualitative content analysis, each media report was reviewed and coded in order to identify its main themes and concepts, the principal actors and their viewpoints, and the metaphors and other rhetorical devices used in the representation of flood issue. Our focus was on the social actors referred to in the media, how they were presented and the kinds of discursive strategies that they used in furthering their agendas amid the shifting strategies of flood governance. We also noted the omissions of certain actors and themes. Throughout the analysis, we considered the discursive conflicts between different actors, and how the discursive shifts and power struggles shaped the construction of changing flood-governance discourses in the media. Based on our qualitative content analysis, we classified the main themes in the media discourses into six different categories and the main social actors into nine ‘voice’ groups, based on different sectors and scales of governance. Through analysis of the continuity and change in the media discourses on flood governance over time, and the variation in the discursive power among different actors at a given time, we analysed the shifts in media discourses on flood governance, while evaluating the relative weight of the voices among different groups of actors.

Analysing the coverage of flood governance in two politically divergent regional newspapers provided important opportunities to examine the flood discourses from different perspectives. In order to better understand the discursive strategies used in the production of media journalism in Tabasco, we carried out interviews with the two chief editors of the newspapers, two reporters from *Presente* and one independent journalist who reports for *Tabasco Hoy*. Furthermore, for a better understanding of the socio-political context of flood governance in Tabasco, we conducted dozens of interviews with

representatives of government institutions, private companies and NGOs, as well as with local residents in different socio-economic parts of Villahermosa. Based on careful analysis of the media reports, together with this supporting contextual information, our study seeks to show how power relations mediate the heterogeneous ensemble of discourses and political procedures embedded in media discussion on flood governance. It also seeks to demonstrate how discursive and extra-discursive strategies formulate and resonate with particular rationalities of flood governance.

Political mapping of the actors

We began our analysis by drawing a political map of the actors and institutions the media allowed to speak about flood governance and how they were represented. This required attention to two types of discursive interventions: those of the ‘sources’ or social actors and those of the journalists (Carvalho, 2008). We kept in mind that different actors’ capacities to convey their views through the media is shaped by complex power-knowledge relations, which determine who are considered legitimate actors in the formulation of environmental policies and public opinion (Hajer & Versteeg, 2005).

According to our analysis of the frequencies of the main actors in voice, the representatives of the state-level governmental institutions were most often heard in the media reports on flood governance, amounting to 20.6 per cent of the analysed articles (Table 1). Among these institutions, the actor most in voice was the governor of Tabasco – a figure with strong symbolic and political power in state politics – followed by the representatives of the state-level Secretariat of Settlement and Public Works (SAOP) and the officials of the Institute of Civil Protection (IPC).

The other equally prominent institutional actors in the media coverage of flood issue were the representatives of the federal-level governmental institutions, whose in-voice presence amounted to 20.1 per cent of the articles. Among the federal-level institutions, the actor most in voice was the representatives of the National Water Commission (CONAGUA), the main institution responsible for flood governance in Mexico.

TABLE 1 HERE

The tensions between federal and state-level flood governance policies became clear in the way that the PRI-inclined *Presente* criticised CONAGUA, which was led by the right-wing *Partido Acción Nacional* (PAN), while supporting the governor-led state institutions headed by the PRI. After the 2007 flood, intensive media coverage was given to serious conflicts between federal and state-level flood strategies, stimulated by the disillusionment felt by regional politicians, municipal authorities and local residents with the federally sponsored flood prevention measures. According to both newspapers, paternalistic attitudes prompted central authorities to promise a guarantee of citizens' safety from the floods even when levels of risk were high. The state institutions, including SAOP and IPC, were depicted in *Presente* as highly responsible institutions entrusted with the difficult task of controlling the informal settlements constructed in flood-risk zones. In *Tabasco Hoy*, they were more frequently portrayed as authoritarian organs that lacked the capacity to communicate with local people and that evicted the informal residents from their precarious settlements without fair compensation.

The politicians appeared as main actors in voice in 6.6 per cent of the analysed media articles and the municipal authorities in 3.8 per cent. The municipal authorities were usually presented either as corrupt officials who took political advantage of the flood risk, or as paternalistic guardians who protected local residents against the federal government's authoritarian policies ('Peligran por anegación sectores de Gaviotas Sur', *Tabasco Hoy*,

15.9.2003; ‘Opinan columnistas de Tabasco Hoy de la inundación’, *Tabasco Hoy*, 2.10.2008; ‘Relleno del río Seco podría causar inundaciones’, *Presente*, 31.3.2010; ‘Tabasqueños nada más se quejan’, *Tabasco Hoy*, 4.8.2011).

In addition to these institutional stakeholders, an important group of social actors in the media presentation of flood governance was the local residents, who appeared as main actors in voice in 9.1 per cent of the articles. Among the local residents, the group most often presented was the low-income residents living in high-risk flood zones. However, in many reports, these informal residents appeared as commentators of the institutional flood governance strategies, or as objects of discussion, without a chance to actively advocate their own views or visions. The informal residents were usually portrayed either as powerless victims of a flood’s ravages waiting for governmental aid, or as perpetrators of the flood disaster because of their informal settlement patterns and their low environmental awareness. They were frequently blamed for erecting illegal housing in flood-prone areas, throwing waste into the rivers and stealing sandbags intended for flood protection, as the following newspaper excerpts illustrate:

They settle irregularly in the riverbeds and know they will be flooded, but they have experienced the emergency shelters and they know the government will not leave them alone (‘Foro para la obra hidráulica’, *Tabasco Hoy*, 21.10.1999).³

It should be noted that, in the absence of surveillance by the authorities, some residents of these areas began to bring much of the sand to their homes with wheelbarrows or tricycles, to form their own barriers, and for this reason, this part of the city is currently totally vulnerable. (‘Mantienen costelería por riesgo de otra inundación’, *Tabasco Hoy*,

³ All the media excerpts have been translated from Spanish to English by the authors.

15.9.2010)

The same objectification held for many NGOs and other civil society representatives, who appeared as main actors in voice in 3.8 per cent of the analysed media reports. Especially the civil society actors, who promoted ideas of social mobilisation and civic environmentalism, were often portrayed as radical idealists and given little opportunity to influence public opinion. This portrayal was particularly apparent in *Presente*, with its links to state-inclined policies. *Tabasco Hoy* at times gave more voice for the NGOs and social-justice activists, who raised critical questions about the flood-related human-rights issues, although even in this newspaper, the exposure of their views was limited. The scientists and other specialists, who were the main actors in voice in 5.4 per cent of the articles, were, in turn, presented as non-partisan experts struggling for the ‘common good’ in flood governance.

The representatives of the private sector appeared as main actors in voice in 2.9 per cent of the media articles. The private flood consultants and representatives of the construction companies emphasised the private sector’s role in creating a safe city environment. In our interviews with NGO representatives, the Mexican oil company, Pemex, was considered a major cause of flood risks in Tabasco. Yet in the media reports, the oil industry’s impact on flood risks was rarely discussed. As Tabasco is economically highly dependent on the oil industry, it seems that the media tactically focused on the flood-governance rivalries between federal, state and municipal authorities rather than raising questions of Pemex’s possible role in the floods. This was probably because the newspapers received a part of their funding from the state government, which in turn wanted to maintain good relations with the oil industry.

In general, the political map implicit in the media coverage of the flood issue demonstrated a diversity of government, private and civil-society actors involved in the

negotiation and debate over flood governance through Tabascan media. Concerning the main differences in the newspapers' exposure of different social actors, the federal and state-level government institutions got a much stronger standing in state-policy-inclined *Presente*, as did the private sector (Figure 1). In contrast, the NGOs, civil-society activists and local residents had a stronger position in opposition-aligned *Tabasco Hoy*.

FIGURE 1 HERE

As the following analysis of the discursive shifts and conflicts in the media discourses will show, different social actors had different degrees of authority and power to influence the media discourses on flood governance. Simultaneously, journalists played a crucial role in shaping who was considered qualified to speak via the media and so exert power in the formulation of political strategies and public opinion on flood governance.

Shifting discourses on flood governance

The promotion of structural flood prevention measures

In the media discussion on flood governance in 1999, structural flood control measures were one of the most prevalent topics (Figure 2). At this time, flood governance was mainly constructed as a technical issue, prioritising the building of flood preventive infrastructure. The elevation of sandbags was portrayed as a 'colossal and exemplary feat carried out under institutional control' ('Protege a Villahermosa barrera de 500 mil costales', *Presente*, 11.10.1999), and the construction of floodwalls and dam infrastructure was portrayed as a crucial technique to protect the Villahermosa's residents from hazardous floods ('Enorme barrera protege la ciudad', *Tabasco Hoy*, 11.10.1999; 'Barceló, al pendiente de la gente', *Tabasco Hoy*, 13.10.1999).

FIGURE 2 HERE

In the media reports of the 1999 flood, the city of Villahermosa was portrayed as being ‘under siege’ from the ‘fury of the river’ (‘Arrasan “trincheras protectoras”’, *Tabasco Hoy*, 7.10.1999) and its residents were ‘prisoners of the water’ (‘Levantán escudo de arena y grava’, *Tabasco Hoy*, 9.10.1999). Biblical metaphors, such as Noah and the flood, the Exodus and the Apocalypse were used to describe the human relocation required by the floods. Water was treated as though it had a threatening, personalised agency and a living memory; it was called the ‘Monster of Nature’ who ‘feels no shame, and therefore does not retreat’ (‘Y el agua tuvo memoria’, *Tabasco Hoy*, 19.10.1999). These issues are indicated in Table 2, which summarises the main rationalities, (in)visibilities, techniques, fields of knowledge and identities forged in the media discourses on flood governance in Tabasco from 1999 to the present.

TABLE 2 HERE

Following the 1999 flood, a discursive conflict ensued in the media over responsibility for flood governance. In both newspapers, local politicians argued that the flood disaster was caused by the Federal Energy Commission’s (CEF) release of excess water from the Peñitas dam in the upper River Grijalva at the onset of heavy rains. The politicians claimed that CEF was the culprit because it irresponsibly stored water in the reservoir in the economic interest of foreign-owned energy companies. Federal authorities counter-argued that the dam had been properly managed and urged people to stop spreading false rumours (*rumorología*) (‘Resguardan militares a Tabasco’, *Tabasco Hoy*, 20.10.1999; ‘Descartan abrir presas de Chiapas’, *Tabasco Hoy*, 20.10.1999). The media politicised the issue, writing that the floods were ‘provoked’ by federal authorities, and claiming that the authorities responsible for operating dams had taken advantage of local people’s unawareness of risk (‘¡Viva la política!’, *Tabasco Hoy*, 8.10.1999). Flood governance was portrayed as an issue

that belonged to responsibility of government institutions, with the arguments that more efficient technical surveillance would be needed to prevent future disaster. Both newspapers urged local people to stop sensationalising the flood issue and to trust the authorities' ability for risk prevention through improved technological control.

Along with the politicisation of the flood issue, the newspapers began to portray flood governance as a power game of institutional politics at different scales. Swyngedouw (2005) notes that scalar politics are an integral part of discursive power struggles, while Keil and Debbané (2011) point out how environmental discourses are shaped by compromise and conflict at multiple scales. In the media discussion on flood governance in Tabasco, different institutional actors used scaling and rescaling as strategies to blame other institutions for failures. Local politicians and municipal officials accused state and federal governments of irresponsibility while presenting their own actions in a polished light. Correspondingly, state authorities minimised the federal authorities' advances in flood prevention while portraying themselves as accountable risk-managers. Journalists played an important role in these power games. By depicting federal authorities as being in conflict with the state and municipal authorities, both newspapers constructed a strong regional defence.

In 2003, when the new flood governance programme (PICI) was established, a shift towards neoliberal discourses on flood governance occurred in the media. From then on, Tabascan flood governance strategies began to be presented as assets for economic development and technological innovation, and emphasis began to be put on the need to capitalise on the region's abundant water resources. Representatives of CONAGUA and the state government applauded PICI as the most ambitious environmental plan in the country, one that would provide technical expertise and inter-institutional capacity for safeguarding people from flood damage while simultaneously making profits from water resources ('Es programa hidráulico el más ambicioso del país', *Presente*, 11.4.2003; 'Dan banderazo a obras

hidráulicas’, *Presente*, 1.8.2003; ‘Trabaja ADRADE para concretar Plan Hidráulico’, *Tabasco Hoy*, 22.9.2003). This shift towards discourses on neoliberal commodification of floodwater proceeded in tandem with the push to privatise drinking water, sanitation, and other public services in Villahermosa, as in other Mexican cities (Nygren, 2012).

Over the years, allusions to technocentric flood control, however, decreased. After the 2007 flood, media reports began searching for culprits to blame for the devastation. Politicians, private consultants and scientists criticised the elevation of sandbags as a palliative measure to hide institutional deficiencies (‘5 millones de costales tienen invadida a Villahermosa’, *Tabasco Hoy*, 8.10.2008), and the building of massive flood prevention infrastructure was portrayed as a ‘phantom that nobody is accountable for’ (‘Hubo 4 mil mdp para obras hidráulicas’, *Tabasco Hoy*, 8.11.2007). *Tabasco Hoy* became especially notorious for its critical stance on structural flood control measures since 2008 (Figure 2). The newspaper’s view was that much of the work carried out in the name of flood prevention lined the pockets of corrupt government officials and greedy construction companies. Similar criticism appeared somewhat later in *Presente*. CONAGUA was criticised for hurriedly demanding the elevation of the sandbags and then calling for their removal – good business for companies in times of emergency when they can charge three times the normal price for sandbags (‘Desvió Komukai 31 mdp para costaleras en 2009’, *Tabasco Hoy*, 19.6.2010; ‘Inundaciones, por abandono del gobierno’, *Presente*, 29.9.2010).

Several politicians and specialists stated in both newspapers that through technocentric flood control, a privileged position had been given to engineers and government authorities to define the flood issue, with little consideration of the social and cultural aspects of the flood risk. According to them, local people were tired of official claims that flood disasters had been caused by Nature or by climate change, rather than admitting that the growing flood risk was because of institutional failures in flood prevention (‘Y los

culpables de esta inundación?', *Tabasco Hoy*, 9.11.2009). This criticism was accompanied by heightened doubts about the possibility of technically managing flood risk and by increased demands for integrated flood governance strategies, in which considerable attention is paid to socio-cultural issues.

A shift towards integrated flood governance strategies

Amid increased questioning of the adequacy of structural flood prevention measures, non-structural flood governance strategies became a more prominent topic in the media since 2008. Relying on statements by influential government authorities, reports, especially in *Presente*, began to emphasise integrated flood governance as a sustainability tool. There were directives to Dutch flood consultants not to construct more floodwalls, but rather to develop urban planning strategies aimed at adaptation, such as building flood-resilient satellite neighbourhoods and vertical housing complexes ('Ayudarán en plan hidrico holandeses', *Presente*, 2.1.2008).

Along with this shift, the media discourses began to portray water more as a friend and ally than as a threat or enemy. Such images have been accompanied by discourses, which portray flood governance as an issue of social resilience and cultural adaptation. Several flood specialists have pointed out that if human beings do not respect water, 'it will come back and recover what is its own' ('Tabasco no se debe volver a inundar', *Presente*, 26.4.2008), and therefore, it is obligatory to develop measures for 'allying with water' ('Urgen obras del PHIT', *Presente*, 10.4.2010). Recent media reports invoke the traditional Tabascan 'culture of water' and local knowledge as valuable assets to promote a new 'culture of water resiliency'. As the following excerpts illustrate, the authorities of CONAGUA have been given an active voice in both newspapers in order to emphasise the importance of local

residents' adaptation to floods:

We need co-participation between the municipal and state governments and the society; the people of Tabasco need to recognise the reality in which they live...This is a very beautiful place; it is possible for people to live perfectly with water here. ('Tabasqueños nada más se quejan', *Tabasco Hoy*, 4.8.2011)

Water is life, not destruction; if we learn to live with this resource once again, we will see it as our friend and not as our enemy. ('Urgen obras del PHIT', *Presente*, 20.10.2011)

Such appeals to re-adopt traditional flood-adaptation practices have been accompanied by statements in which government authorities' and private consultants' demand that local residents should develop flood-management strategies based on increased self-responsibility, instead of waiting for governmental help and guidance in every matter. Such arguments support neoliberal thinking of individual responsibility, as can be noted in the following excerpt:

We, all the Tabascans, are responsible in one way or another; we know from our own experience and from our elders' experience that we live in a place that Nature made vulnerable by providing an excess of water here, and still, we do not care about it. ('Opinan columnistas de Tabasco Hoy de la inundación', *Tabasco Hoy*, 2.10.2008)

This discussion on self-responsibility and cautious conduct has been facilitated by increased criticism of excessive state bureaucracy and paternalist governmental control. In line with

neoliberal thinking, the media reports promote private incentives and public-private partnerships with the intention to spur technological innovation and a green economy that facilitates cost-effective risk management. Several reports especially in *Presente* argue that the Tabascan water resources need to be converted into a ‘motor of development’ and a ‘resource of prosperity’ (‘Necesario modificar el PHIT’, *Presente*, 27.10.2011).

Other non-structural flood governance measures frequently discussed in recent media reports include zoning and integrated urban planning. A growing number of articles in both newspapers focus on illegal housing construction in flood-prone areas, with heated debates on the responsibility for regulating such activities. These reports contain claims by representatives of CONAGUA that local politicians and municipal officials have encouraged people to settle in risk areas with the hope of attracting their votes. Concurrently, municipal officials argue that illegal construction in risk areas continues because of low levels of individual responsibility and contradictions in the institutional regulations.

The relocation of the inhabitants living in critical flood-risk zones has become a hot issue in the media since 2009, when thousands of informal residents living along the riverbanks near the historic city centre were evicted from their homes and relocated to a suburban periphery. The governmental authorities carried out these operations in the name of integrated urban planning, according to which the safety of the city requires special procedures for correcting the behaviour of those considered risk-causers. Some *Tabasco Hoy* journalists have been critical of CONAGUA and the state institutions for their lack of transparency with the relocations; meanwhile, authorities of CONAGUA have defended themselves, arguing that flood disasters in Villahermosa are ‘not provoked by the violence of the rains’ but by ‘human settlements associated with poverty and fraud’ (‘Gobiernos locales, culpables de inundaciones’, *Tabasco Hoy*, 22.9.2010, ‘Inundaciones, por mala planeación’, *Presente* 23.9.2010). From CONAGUA’s viewpoint, the poor people’s habit of building their

shacks in risk zones promotes a culture of damage-beneficiaries, which entices people into settling in flood-prone areas and subsequently demanding compensation. Representatives of the Institute of Civil Protection (IPC) have presented similar views in both newspapers:

It is a huge problem; we cannot have police in every settlement. We have tried to demolish the houses we have de-occupied, but the problem is that people come and build precarious houses of corrugated iron and wood. ('Se resisten a la reubicación 3,489 familias', *Tabasco Hoy*, 26.7.2010)

In these reports, scant attention has been paid to why certain areas and certain social groups are more vulnerable to flood risks than others and how different groups' ability to cope with flood risk links to uneven distribution of vulnerabilities. Several media reports emphasise how the poor have been relocated, with government aid, from their miserable shacks in flood-risk areas to more habitable zones. Intensive media coverage has been given to justify the relocation policy, as the following comment by the state governor in *Tabasco Hoy* illustrates:

It is responsible because we cannot allow thousands of families to continue living in areas where their physical integrity and their property remain at high risk. It is timely because we are offering to the relocated people a decent house, totally completed. It is necessary because this relocation will allow us to seal one of the windows, which needs to be urgently closed in order to prevent the intrusion of water, and to construct the protection work that people are demanding. ('Desaparece Casa Blanca: movilizarán 1,394 habitantes', *Tabasco Hoy*, 9.6.2009)

Interestingly, in many of these reports, conventional forms of governmental control have

been tied to neoliberal modes of self-governance as the authorities interviewed in the media emphasise local residents' self-responsibility, while simultaneously supporting social tutelage. These media reports tactically stress that the informal residents living in the high-risk zones have no legal rights to public services, and thus it is better for their own well-being to leave for the resettlement areas, which the government has equipped with modern services. As an official of the Ministry of Social Development (SEDESOL) explained in *Tabasco Hoy*:

I want to assure that this housing development is well planned; it is equipped with the essential services that the families require. These houses provide encouragement for these people to move forward with their children; they offer an incentive for these people to continue struggling for a better living. ('Tabasco no debe volver a inundarse', *Tabasco Hoy*, 2.7.2009)

Because of the political and economic interests involved, even the most critical media reports rarely raise questions about the authorities using flood risk as a pretext for evicting the poor from settlements near the renovated city centre, with its increased property values. Implicit in these views is the idea that people and activities regarded as 'undesirable' or 'inadequate' need to be displaced in order to create an image of an ordered and secure city-life.

The residents of the informal settlements themselves resisted displacement, arguing in some media reports but especially in our interviews that such measures only benefit the rich who can afford real estate in the city centre, while marginalising the poor, whose way of life is not considered worth protecting. The representatives of CONAGUA responded to these accusations by claiming that social conflict and local opposition have hindered adequate flood prevention in informal settlements ('Listo en un 70% el Plan Hídrico', *Presente*, 25.6.2011; 'Se resisten a la reubicación 3,489 familias', *Tabasco Hoy*,

26.7.2010; ‘Exhibe su fracaso la Conagua’, *Tabasco Hoy*, 4.8.2011). The residents interviewed in affluent neighbourhoods supported relocations and flood-protection improvements in the city centre, pointing out that, as they pay huge taxes and contribute significantly to the national economy, they should be offered better services than the informal residents with their inconsiderate way of living. Most of the residents in affluent neighbourhoods paid scant attention to existing inequalities in the socio-spatial distribution of environmental vulnerabilities. In a survey conducted in 2011, about 56 per cent of these residents reported to be active readers of *Tabasco Hoy* or *Presente* (Teno, 2012).

Overall, the recent media reports put considerable emphasis on the issue that, in addition to technological flood control, local residents need to develop self-responsibility through cultural adaptation and social learning (Table 2). The government authorities, commenting in both newspapers, emphasise that one of the main causes of flood risk in Villahermosa is that people do not take responsibility. Representatives of NGOs correspondingly claim that residents need to take initiative to develop their own cultural practices to live with water. This shift towards discourses on social resilience and self-governance goes hand-in-hand with tightened demands for public-private partnerships and civic self-care in the provision of water, sanitation, health-care and other public services in Villahermosa as elsewhere in Mexico.⁴

According to our analysis, the promotion of structural flood control measures was the main theme in 28.7 per cent of the analysed media articles, while integrated flood-resilience strategies were promoted in 21.7 per cent of the articles. There was, however, a considerable shift in these presentations, over time. The structural flood control measures were prevalent in the media reports in 1999 (Figure 2). Since 2003, and particularly since 2008, increased criticism has been raised toward technocentric flood control, and the media

⁴ For similar demands in other emerging economies of the global South, see Caldeira (2008), Didier, Peyroux and Morange (2012) and Harms (2012).

discourses have shifted from flood resistance to flood resilience. The new integrated flood-resilience discourses foster market-based mechanisms and civic self-responsibility through arguments that claim that encouraging local residents to transform themselves from a state of having responsibilities to taking on responsibilities in flood-risk management is in their own best interest.

This does not, however, mean that integrated flood governance discourses have completely displaced the conventional discourses on technocentric flood control. Rather, the media combine various aspects of government-led, structural flood control with integrated social-resilience discourses in order to make new ideas of flood governance publicly acceptable. In addition, the media accords an important, although reconfigured role to government institutions even in the neoliberal-oriented flood-governance discourses. At the same time, the emphasis on the active involvement of private and voluntary sectors in flood-governance issues blurs the divisions between the state, market and the civil society, making it difficult for the public to identify those responsible and place them under public scrutiny.

Flood safety as a human rights issue

Recently in the media, some human-rights activists and social-justice advocates have tried to present flood safety as an issue of human rights and social justice. In 2009, the Senate Commission of Human Rights advised the Tabascan state authorities against the further construction of water containment infrastructure. Instead, the Commission emphasised that the government has the responsibility to provide sound living conditions for all citizens, regardless of their socio-economic position. Such discussion received special attention in Tabascan newspapers in 2011, when serious flooding incidents occurred in several peri-urban and rural areas in Tabasco. These floods were attributed to canals having been constructed to

divert floodwater away from Villahermosa. According to human-rights activists, the technocentric attempts to control the flow of water through canals and floodwalls only transfers risk from one place to another, while failing to recognise the uneven distribution of vulnerabilities. As a human-rights activist argued in *Tabasco Hoy*:

...the *Programa Hidrico Integral de Tabasco* [Integrated Water Management Plan of Tabasco] needs to be revised profoundly because in reality, it is only saving some people while sacrificing others. ('Exige METAB cárcel para Jorge Mijangos', *Tabasco Hoy*, 16.11.2011)

In the view of these human-rights and social-justice activists, there is a need for detailed social impact assessments concerning flood governance in order to guarantee citizens' equal rights to a safe living environment. Many of these activists have demanded more open policy networks that break down the boundary between scientific and lay knowledge so that civic environmentalism and local empowerment can be facilitated (Table 2). Interestingly, by focusing on flood governance as grassroots activism and local empowerment, these advocates for rights-based governance often fail to consider the wider political economy and multi-scale power relations involved in flood governance.

While the media reports that supported technocentric flood control laid the responsibility for governance mainly on government authorities, media reports that emphasise integrated flood resilience tend to depoliticise the flood issue. This happens through promoting public-private co-governance that diffuses questions of responsibility. Whenever they get media exposure, the human-rights advocates try to re-politicise the flood issue by claiming that flood governance cannot be outsourced to the private sector or voluntary groups; rather, it is the right and duty of the citizens to demand the government's

responsibility to manage flood risks and address the public concerns related to vulnerabilities.

As a civil-society sector columnist commented in *Tabasco Hoy*:

And as people here in Tabasco are not aware of the basic issues, we are not able to demand that the authorities respect our legitimate rights. We allow them to do whatever they want. ('Opinan columnistas de *Tabasco Hoy* de la inundación', *Tabasco Hoy*, 2.10.2008)

According to these human-rights and social-justice advocates, instead of considering the informal residents' low environmental awareness as the main cause for flooding in Villahermosa, more attention should be paid to equity and justice in urban policy and planning. In our interviews with these actors, many of them criticised the ongoing privatisation of environmental services, arguing that citizens' access to basic amenities is a human-right issue. According to them, the flood-governance strategies must address the residents' socially differentiated exposure to vulnerabilities. By tactical designation of the flood risk as a human-rights issue, they proposed rights-based flood governance as an alternative to flood-resilience discourses, which promote private regulation and civic self-responsibility.

This nascent discourse on flood safety as an issue of human rights and social justice has been accompanied by increased criticism of neoliberal deregulation and demands for more publicly regulated environmental policies. Some of the human-rights and social-justice advocates whom we interviewed argued that because people do not experience integrated flood-resilience strategies as beneficial, civic groups are calling for decentralised policies and stressing the role of the government authorities in ensuring citizens' environmental safety. Similar calls for a shift away from market-oriented strategies to more

publicly regulated environmental policies characterise civil society demands in many parts of Latin America today.

In Tabasco, the media exposure of the rights-based flood governance strategies has, however, been limited. Although the newspapers at times voiced relatively strong criticism of the government's lack of responsibility to protect citizens from floods and the contradictions between flood-governance rhetoric and practice; in general, both newspapers consolidated the dominant views of flood governance. Since flood governance was a topic of high news value, government authorities were eager to influence how the media presented this socially sensitive issue. The perspectives of human-rights and social-justice advocates were understated, even though many journalists claimed that they did give considerable space to dissonant voices in the name of balanced coverage. Specialists' expert knowledge was used to claim scientific evidence in support of discourses emphasising social resilience and self-care, along with technological control. According to our analysis, only 4.1 per cent of the media articles focused on flood safety as a human-rights issue or an issue linked to socio-spatial distribution of vulnerabilities (Figure 2). Limited attention was also given to the residents' uneven opportunities to influence flood-governance strategies.

Our analysis of the wider political economy of media discourses revealed close networks between the political elite, business and media circles of Tabasco. The interests of the elite were supported by media reports that represented informal residents as provoking floods through illegal land occupation, while the business actors' environmentally questionable land deals were largely ignored. Although human-rights advocates tried to contest how the media presented marginal residents as culprits of the flood risk, their opportunities to change the dominant media discourses were limited. Their concerns about human displacement received scant attention in the media and few media reports discussed the ongoing social segregation, a fact indicating that the media implicitly supported the

prevailing forms of urban policy and planning.

The extent to which government authorities could shape the media discourses was partly determined by the legacy of paternalist oversight and partly by neoliberal techniques of indirect control. Despite ideological differences, the main differences between the two newspapers concentrated on *Tabasco Hoy*'s stronger criticism of institutional irresponsibility and the inadequate state of flood prevention infrastructure. *Tabasco Hoy* also gave more active voice to human-rights advocates, social-justice activists and informal residents, probably due to its more critical stance and inclination towards the leftist opposition. Nevertheless, the fact that both newspapers received funding from the state government toned down their arguments concerning the social-justice aspects because the editors knew that critical coverage of these issues could lead to losing subsidies.

Conclusion

In recent years, there has been a surge of academic interest in media discourses on environmental governance. Drawing on a post-Foucauldian CDA, this study has analysed the continuities and changes in the media discourses on urban flood governance in Tabasco, Mexico, since the late 1990s. Our study revealed the diversity of actors involved in the construction of media discourses on flood governance and the different actors' discursive strategies to further their agendas amid shifting forms of environmental governance. Through an analysis of the rationalities, (in)visibilities, techniques of flood governance, fields of knowledge and subjectivities that Tabascan newspapers supported, our study demonstrated how media promoted categorical perspectives about the causes and culprits of the flood risks and socially differentiated strategies how to manage them. Considering the discursive contestations between differently situated actors, we understood media discourses as a matter

of public negotiation and political debate. In our diachronic analysis, we examined the shifts in the media discourses on flood governance over time; in our synchronic analysis, we considered the divergences between different discourses and representations of flood governance at a given time.

Evident in our study, considerable changes have taken place in recent years on the discursive terrain of flood governance in Tabasco. In the 1999 media reports, discourses on flood control with technological procedures dominated. Since 2003, the media began to stress that water governance needs to be outsourced to the private sector on the premise that market-based regulation promotes economic development. After 2007, flood-governance discourses focusing on integrated urban planning, relocation of people from flood-prone areas, cultural adaptation and social resilience gained support. The push to make local residents more capable to live with water became a crucial issue in the media coverage of flood governance, along with technological control. Through discourses on self-governance, the responsibility for flood management was transferred to local residents. Simultaneously, the media provided an arena for the authorities to legitimise socially delicate political agendas, including evictions of informal residents from settlements near the city centre. In such media reports, conventional discourses on governmental tutelage were mixed with the neoliberal discourses on civic self-care. The displacements were justified on the grounds that they were necessary to save the city from future disasters.

Through lively debate and intensive coverage, the Tabascan newspapers facilitated an important public discussion on flood governance. At times, both newspapers voiced relatively strong criticism of the institutional lack of accountability and the contradictions between governance rhetoric and practice. Recently, the media criticised market-based flood-governance mechanisms and demanded governmental responsibility to protect citizens from floods. This indicates that the media can potentially play an important

role as watchdog even in hierarchical power structures, such as those in Mexico.

Nevertheless, the media discussion on flood governance was not particularly inclusive. Despite ideological differences, both newspapers consolidated the institutionally dominant views of flood governance, while the alternative perspectives of human-rights and social-justice advocates were understated. The same held true for local residents, especially the poor living in the risk zones. Their perceptions were often objectified as discussion points, with paternalistic notes on the need to enhance their capability to cope with contingencies.

The extent to which institutional authorities could shape the media discourses was partly determined by the legacy of paternalist control and partly by neoliberal techniques of indirect governance, which concealed the (ir)responsibilities of institutional actors. The fact that both newspapers received funding from the state government toned down their arguments concerning the uneven distribution of vulnerabilities and flood risk as a human-rights issue. Further, the fact that the newspapers needed to address multiple audiences, mainstreamed their discourses in order to resonate with the dominant discourses on governance.

By tracing the time- and context-specific media discourses, our study has shown how changes in the political rationalities of governance shape the ways that flood governance is presented in the media, and correspondingly, how media discourses endorse, negotiate and contest the dominant rationalities of flood governance. In this respect, our study answers the recent call by Foucauldian-oriented researchers, arguing for the need to pay more attention to the multi-vocal nature of discourses and the tensions between different discourses (Collier 2009; McKee, 2009). To this aim, our analysis has sought a picture of the dynamic web of struggles and contestations, providing insights into continuities, changes and *mélanges* characteristics of the media representations of governance. The Tabascan media reports

combined certain elements of the conventional discourses on government-led governance with recent discourses on market-led governance in order to make the new flood-governance strategies publicly acceptable.

Our study also addressed the call in post-Foucauldian studies for detailed analyses of how neoliberal discourses and rationalities of governance are constituted in specific locations through differentiated and often uneven processes (Brenner *et al.*, 2010; Carrier, 2012). By tracing the trajectories that forged particular discourses on flood governance in Tabascan media, we demonstrated how heterogeneous agendas are brought together in multi-layered discourses on governance and how discourses undergo dynamic modifications, while retaining particular continuities and relying on cultural-specific rationalities.

Our analysis has also contributed to Foucauldian CDA by analysing the multi-layered links between discourses, power and politics (Coleman *et al.*, 2012; Collier, 2009; Shapiro, 2013). According to Foucauldian-oriented researchers, more attention is needed to address issues of what discourses accomplish, or to use Foucauldian terms, to examine what they produce (Collier, 2012; Mckee, 2009). By analysing the relations between discourses and political practices, our analysis has demonstrated how the multi-scale politics shape the formulation of media discourses and how the media discourses seek to constitute certain places and certain groups of population governable. Thus, media discourses both reflect and reproduce power relations constituted within particular circumstances, at the same as they resonate with the wider rationalities of governance that circumscribe the contextually embedded discourses on power and politics.

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